Assignment3

大项 1 of 1 -

题目 1 of 30 1 得分

A couple has two female children. What is the probability that their next child will be male?

- A. 25%
- B. 67%
- C. 33%
- D. ~50%

重设选项

上一题 下一题 保存 退出

大项 1 of 1 -

题目 2 of 30 1 得分

Achondroplasia is a form of dwarfism caused by a dominant allele. The homozygous dominant genotype causes death, so individuals who have this condition are all heterozygotes. If a person with achondroplasia mates with a person who does not have achondroplasia, what percentage of their children would be expected to have achondroplasia?

- A. 0%
- B. 50%
- C. 75%
- D. 100%

重设选项

题目 3 of 30 1 得分

An individual with the genotype AaBb produces four different gametes in equal proportions. This is a demonstration of _____.

- A. Mendel's principle of segregation
- B. the chromosomal theory of inheritance
- C. linkage
- D. Mendel's law of independent assortment

重设选项

EeFf x eeff -> eeFx? 1/2*1/2

大项 1 of 1 -

题目 4 of 30 1 得分

In humans, free earlobes (E) are dominant to attached earlobes (e) and the presence of freckles (F) is dominant to the absence of freckles (f). If an individual heterozygous for both of these traits were to mate with an individual with attached earlobes and no freckles, what is the probability of having a child with attached earlobes and freckles?

- A. 0%
- B. 50%
- C. 100%
- D. 25%

重设选项

大项 1 of 1 -

题目 5 of 30 1 得分

In humans, the inheritance of _____ is best explained as being polygenic

- A. height
- B. sickle-cell disease
- C. cystic fibrosis
- D. blood type

重设选项

题目 6 of 30 1 得分

Linked genes are usually _____.

- A. found on the Y chromosome
- B. codominant
- C. located close together on a chromosome
- D. found on the X chromosome

重设选项

大项 1 of 1 -

题目 7 of 30 1 得分

The best definition of a purebred plant is one that _____.

- A. cannot be cross-fertilized
- B. self-fertilizes to produce offspring identical to the parent
- C. self-fertilizes to produce hybrid offspring
- D. produces sterile offspring when cross-fertilized

重设选项

大项 1 of 1 -

题目 8 of 30 1 得分

What data or test would you seek to determine whether or not a trait is sex linked?

- A. Amniocentesis
- B. karyotype
- C. pedigree
- D. metabolite test

重设选项

大项 1 of 1 -

题目 9 of 30　　1 得分

What is the basis of Mendel's laws?

- (●) A. the behavior of chromosomes during metaphase I and anaphase I of meiosis
- ( ) B. the behavior of chromosomes during mitotic anaphase
- ( ) C. the behavior of chromosomes during prophase I of meiosis only
- ( ) D. the behavior of chromosomes during prophase I and prophase II of meiosis

重设选项

大项 1 of 1 -

题目 10 of 30　　1 得分

What is the key to the recognition of codominance?

- ( ) A. The trait exhibits a continuous distribution
- (●) B. The alleles affect more than one trait
- ( ) C. The phenotype of the heterozygote is intermediate between the phenotypes of the homozygotes
- ( ) D. The heterozygote expresses the phenotype of both homozygotes

重设选项

大项 1 of 1 -

题目 11 of 30　　1 得分

What is the key to the recognition of incomplete dominance?

- ( ) A. The heterozygote expresses the phenotype of both homozygotes.
- ( ) B. The trait exhibits a continuous distribution.
- (●) C. The phenotype of the heterozygote falls between the phenotypes of the homozygotes.
- ( ) D. The alleles affect more than one trait.

重设选项

杂合子表现在AA和aa之间

大项 1 of 1 -

题目 12 of 30　　1 得分

Which of these crosses will produce only heterozygous offspring?

- A. AA × Aa
- B. Aa × Aa
- C. Aa × aa
- D. AA × aa

重设选项

目录

大项 1 of 1 -

题目 13 of 30　　1 得分

_____ genes violate Mendel's principle of independent assortment.

- A. Codominant
- B. Recessive
- C. Pleiotropic
- D. Linked

重设选项

大项 1 of 1 -

题目 14 of 30　　1 得分

A mutation within a gene that will insert a premature STOP codon in mRNA would _____.

- A. change the location at which transcription of the next gene begins
- B. have the same effect as deleting a single nucleotide in the gene
- C. result in a shortened polypeptide chain
- D. result in a longer polypeptide chain

重设选项

大项 1 of 1 -

题目 15 of 30　　1 得分

Bacterial RNA polymerase binds to the _____.

- (●) A. promoter
- ( ) B. regulatory gene
- ( ) C. operator
- ( ) D. proto-oncogene

重设选项

大项 1 of 1 -

题目 16 of 30　　1 得分

How is it that the cells in different body tissues are able to perform different functions?

- ( ) A. Different chromosomes have been inactivated in different cells.
- ( ) B. The mutations that have accumulated in the cells of the different tissues control functions.
- (●) C. The cells exhibit different patterns of gene expression.
- ( ) D. The cells contain different genes.

重设选项

大项 1 of 1 -

题目 17 of 30　　1 得分

In bacteria, what name is given to a cluster of genes with related functions, along with their DNA control sequences?

- ( ) A. exon
- ( ) B. operator
- ( ) C. promoter
- (●) D. operon

重设选项

大项 1 of 1 -

题目 18 of 30　　1 得分

In eukaryotic cells, repressor proteins inhibit transcription by binding to _____.

- A. operons
- B. enhancers
- C. silencers
- D. promoters

重设选项

大项 1 of 1 -

题目 19 of 30　　1 得分

Many proto-oncogenes regulate _____.

- A. cell growth
- B. cell cloning
- C. cell repair
- D. cell division

重设选项

大项 1 of 1 -

题目 20 of 30　　1 得分

The "master control genes" that regulate other genes and determine what body parts will develop in which locations are called _____.

- A. oncogenes
- B. enhancers
- C. homeotic genes
- D. operons

重设选项

大项 1 of 1 -

题目 21 of 30　　1 得分

The region of DNA where RNA synthesis begins is the _____.

- A. promoter
- B. terminator
- C. start codon
- D. stop codon

重设选项

21秋第三次作业

目录

大项 1 of 1 -

题目 22 of 30　　1 得分

Transcription is the _____.

- (●) A. manufacture of a strand of RNA complementary to a strand of DNA
- ( ) B. manufacture of two new DNA double helices that are identical to an old DNA double helix
- ( ) C. manufacture of a protein based on information carried by RNA
- ( ) D. modification of a strand of RNA prior to the manufacture of a protein

重设选项

目录

大项 1 of 1 -

题目 23 of 30　　1 得分

What happened when researchers added BPDE, a component of tobacco smoke, to human lung cells in a laboratory experiment?

- ( ) A. The cells shrank in size.
- ( ) B. The cells required less energy to grow.
- ( ) C. The cells behaved normally.
- (●) D. The cells developed mutations in their p53 genes.

重设选项

大项 1 of 1 -

题目 24 of 30　　1 得分

What is a difference between embryonic and adult stem cells?

- (●) A. Embryonic stem cells are undifferentiated; adult stem cells are partially differentiated.
- ( ) B. It is easier to obtain embryonic stem cells.
- ( ) C. Adult stem cells cannot grow in culture.
- ( ) D. The use of embryonic stem cells raises fewer ethical issues than the use of adult stem cells.

重设选项

大项 1 of 1 -

题目 25 of 30　　1 得分

Where in the cell is protein translation performed?

- ( ) A. nucleoli
- ( ) B. lysosomes
- (●) C. ribosomes
- ( ) D. smooth endoplasmic reticulum

重设选项

大项 1 of 1 -

题目 26 of 30　　1 得分

Which of the following is NOT a possible use of reproductive cloning?

- A. the production of organs in large farm animals for transplant into humans
- B. restocking populations of extinct animals such as the wooly mammoth
- C. the production of genetically identical mice and rats for experimentation
- D. creating stocks of stem cells for human therapeutic use

重设选项

大项 1 of 1 -

题目 27 of 30　　1 得分

Which of the following is NOT an example of how tumors evolve?

- A. Tumor cells can spread throughout the body.
- B. Tumor cells pass on mutations when they divide.
- C. Tumor cells show genetic variability.
- D. Tumor cells grow uncontrollably.

重设选项

目录

大项 1 of 1 -

题目 28 of 30　　1 得分

Which of these is most likely to cause the development of a six-legged frog?

- A. conversion of a proto-oncogene to an oncogene
- B. mutation of homeotic genes
- C. binding of repressors to operons
- D. a mutation in DNA polymerase that affects all cells

重设选项

21秋第三次作业

目录

大项 1 of 1 -

题目 29 of 30　　1 得分

Which risk factor is associated with cancer of the colon and rectum?

- A. UV radiation
- B. viruses
- C. dietary fat
- D. tobacco

重设选项

大项 1 of 1 -

题目 30 of 30　　1 得分

While examining a human cell that functions normally, you determine that it has 45 functional chromosomes and one chromosome that is almost completely inactive. You immediately decide that it is very likely that this cell _____.

- A. came from a normal human female
- B. is a gamete
- C. is lacking a chromosome
- D. will become cancerous if one or two more genes are mutated

重设选项

这个30题为啥？？？